

ABSTRACT OF THE DISCLOSURE

A storage system is provided that implements a file system configured to optimize the amount of readahead data retrieved for each read stream managed by the file system. The file system relies on various factors to adaptively select an optimized readahead size for each read stream. Such factors may include the number of read requests processed in the read stream, an amount of client-requested data requested in the read stream, a read-access style associated with the read stream, and so forth. The file system is also configured to minimize cache pollution by adaptively selecting when readahead operations are performed for each read stream and determining how long each read stream's retrieved data is retained in memory.